# Strategies for Conducting a Budget Impact Analysis at the MTF Level

# Presentation Outline

- Objectives
- Brief overview of the concepts of Budget Impact Analysis (BIA)
- Real World Example
- Questions

# BIA Objectives

- To estimate the budget impact of a decision to add, delete or replace a drug from the MTF Formulary
- Describe the methodology, data sources, costing, and time horizon(s) of budget impact analysis
- To assure the audience that they have the knowledge, skills, and tools to conduct a BIA at their MTF

# Hurdles to Market
# Read in: *Hurdles to MTF Formulary*

Safety

Efficacy

Quality

Cost-Effectiveness

Affordability

# Importance of a BIA

- **Considered an essential component of a comprehensive economic assessment**
  - **A CEA is no longer sufficient**

# Difference between a CEA and BIA

- **A CEA estimates the incremental lifetime costs and effectiveness of a new drug compared with current treatment for a representative patient and provides an estimate of the efficiency or value of the new drug compared with alternative treatments (Mauskopf, JA et al.)**
- **A BIA estimates the impact on annual healthcare use and cost for the first, second and subsequent years after the introduction of the new product for a national or health plan population (Mauskopf, JA et al.)**
  - **Considers uptake, magnitude, and timing of its impact on healthcare use and costs**

# CEA Limitations

- **Many CEAs adopt a societal perspective**
  - **Healthcare decision-makers are only concerned with direct medical costs**
    - **Smoking Cessation**
  - **Inability to reallocate savings beyond the health service budget**
- **For CEAs that adopt a healthcare purchaser perspective and thus only include direct medical costs**
  - ✓ **Budgetary silos exist within the health service**
- **The time horizon of the healthcare decision-maker is often much shorter than that of the economic analyst**
  - **Statins (primary prevention)**

# BIA Appropriateness

- **The degree of substitution with existing therapies**
  - **Will new money be required to fund the therapy?**
- **Impact on service delivery**
  - **Will the new intervention increase or reduce the use of other healthcare resources?**
- **Size of the potential patient population**
- **The likely importance of affordability in the decision-making process and the appropriateness of allocating funds to the condition (*e.g. lifestyle drugs…often a political decision*)**

# Factors Considered in a BIA by Trueman and colleagues

- ✓ **Model Perspective**
  - **Clearly stated and consistent with the view of the decision-maker**
- ✓ **Model Comparators**
  - **Compare new therapy with existing and minimum practice therapies**
- ✓ **Data Sources**
  - **Input data should be obtained from the best possible sources and be clearly presented along with any assumptions**
- **Relationship between short-term and model end points**
  - **Clinical end points from trials are often obtained over a shorter treatment timeframe than the model horizon. The model should clearly present any assumptions on clinical effectiveness of products within the analysis time horizon**

# Factors Considered in a BIA by Trueman and colleagues

- ✓ **Adoption of new therapies**
  - **The model needs to clearly present assumptions on the rate of uptake and any substitution for current treatments and/or increased demand for another product that may come about as a result of adopting the new therapy**
    - **Substitution of existing treatments**
    - **Induced demand (see your local industry representative)**
- ✓ **Population subgroups or indications**
  - **The BIA must allow for the examination of the appropriate population subgroups as seen within the clinical trials or as present in the approved indication**
- **Time horizon**
  - **The time horizon of the BIA needs to be appropriate given the therapeutic area and decision-maker perspective**

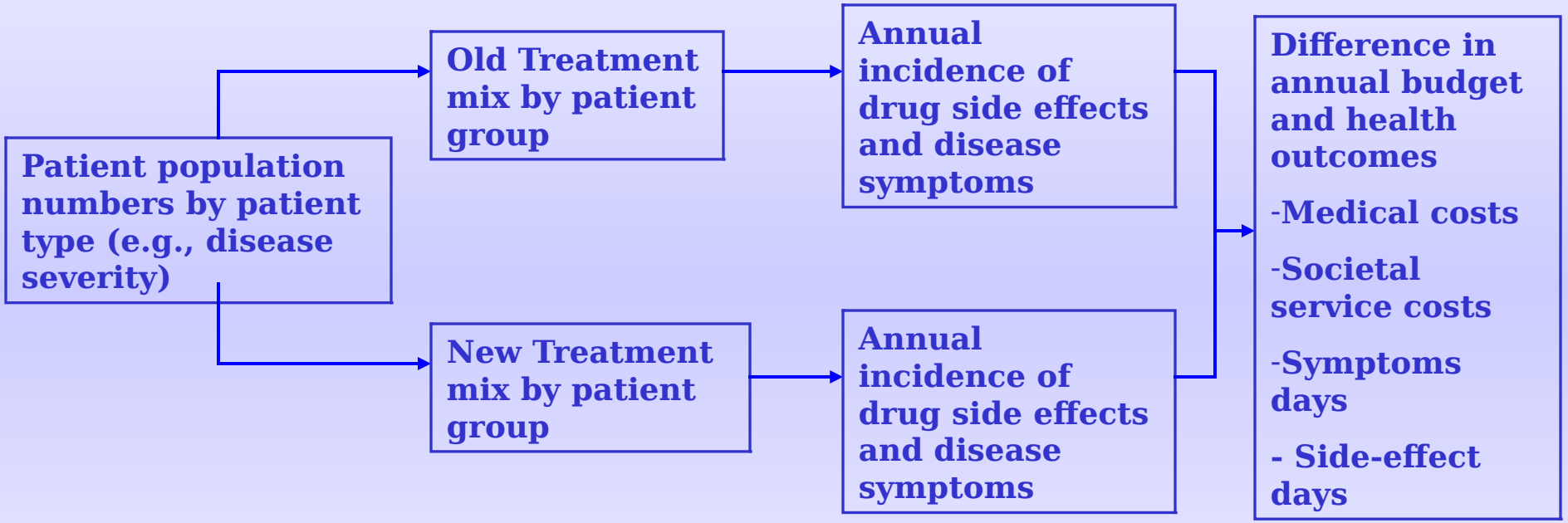
# Factors Considered in a BIA by Trueman and colleagues

- ✓ **Transparency**
  - **Model inputs, assumptions, and calculations should be clearly presented**
- ✓ **Reporting results**
  - **Results should be reported in both health care service (i.e., physician visits, emergency department visits, hospitalization) and currency units**
- **Long-term impact on events**
  - **The BIA should predict the long-term impact on events**

# Factors Considered in a BIA by Trueman and colleagues

- **Redeploying resources**
  - **The BIA should predict the impact on redeploying services such as general or specialty physician visits to other areas of care**
- ✓ **Uncertainty and sensitivity analysis**
  - **Uncertainty around key inputs and assumptions should be analyzed**
- **Usefulness of the model for decision makers**
  - **The model should be made accessible to decision makers through construction/validation of the structure, inputs, and assumptions of the model and/or direct access for the analysis of situation-specific scenarios**

# BIA Methodology


Patient population numbers by patient type (e.g., disease severity)
Old Treatment mix by patient group
New Treatment mix by patient group
Annual incidence of drug side effects and disease symptoms
Annual incidence of drug side effects and disease symptoms
Difference in annual budget and health outcomes
-Medical costs
-Societal service costs
-Symptoms days
- Side-effect days



•Mauskopf JA *et al.* Budget impact analysis: review of the state of the art. *Expert Rev. Pharmacoeconomics Outcomes Res.* 5(1), 65-79

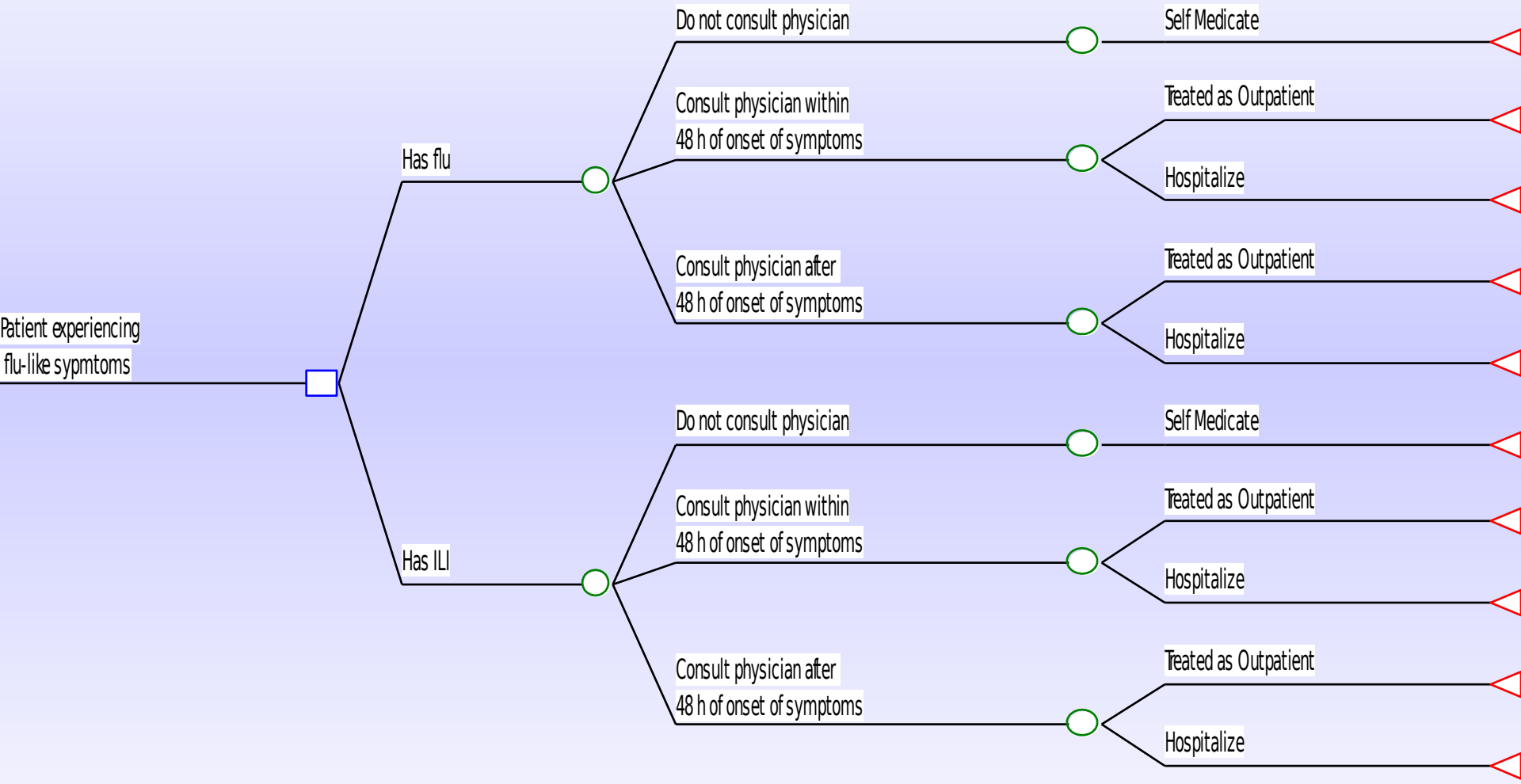
# Methodology Types

- **Type of methodology dependent on new drug indication, impact of drug on that indication, and time horizon**
- **Two Types**
  - **Static**
    - **Acute conditions where new drug impact occurs over a short time**
    - **Or chronic conditions where the horizon of interest for the analysis is very short**
  - **Dynamic**
    - **Appropriate for chronic illness where the new drug slows disease progression and/or reduces premature death rates, and estimates are needed for both short and longer-time horizons**

# Methodology
# Static and Dynamic

- **Static**
  - **Incorporates epidemiologic data on the incidence of the acute condition of interest into the CEA**
- **Dynamic**
  - **Combines data from CEA along with epidemiologic data on the incidence, prevalence, and natural history of the chronic condition of interest**
  - **Takes a lifetime perspective (not always)**
  - **Markov or discrete event simulation model**

# Static Model Influenza






PharmacoEconomics 16(Suppl. 1), 73-84 (1999)

# Static Model
# Hypothetical BIA for New Influenza TX

| Outcomes | General Population | High-Risk Population |
|---|---|---|
| Expected number of treated cases per year | 1000 | 100 |
| Drug cost per case with new treatment (US$) | 30 | 30 |
| Extra Physician visits per treated case (%) | 50 | 25 |
| Reduction in percent with outpatient complications with new treatment (%) | 2 | 5 |
| Reduction in percent hospitalized with new treatment (%) | 0.1 | 2 |
| Reduction in days with symptoms per person treated with the new drug (days) | 1 | 2.5 |
| Annual drug costs for new treatment (US$) | 30,000 | 3,000 |
| Annual additional physician visit costs to access new treatment (US$60/visit) (US$) | 30,000 | 1,500 |
| Annual reduction in outpatient complication cost (US$80/case) (US$) | -1,600 | -400 |
| Annual reduction in hospital stay costs (US$4000/case) (US$) | -4,000 | -8,000 |
| Total budget impact of new influenza drug (US$) | 54,400 | -3,900 |
| Change in annual influenza symptom days with treatment with new drug | 1,000 | 250 |



• Mauskopf JA *et al.* Budget impact analysis: review of methodological practice. *Expert Rev. Pharmacoeconomics Outcomes Res.* 5(1), 65-79

# BIA
# Special Factors

- ✓ **Inclusion of healthcare costs not related to the condition of interest**
  - **Second order costs**
- **Market diffusion of new drug over time in the target population**
- **Increase in the number of people with a health condition who seek medical care**
  - **Example: drugs used to treat erectile dysfunction**
- ✓ **Off-label use**

# To Learn More

- **Mauskopf JA *et al.* Budget impact analysis: review of the state of the art. *Expert Rev. Pharmacoeconomics Outcomes Res.* 5(1), 65-79 (2005)**
- **Trueman P *et al.* Developing Guidance for Budget Impact Analysis. *Pharmacoeconomics* 19(6) 609-621 (2001)**

# BIA
# Real World Example: PDE5s

- **14 July 05 Uniform Formulary Decision**
  - **Vardenafil formulary on UF with ECF status at MTFs; Sildenafil and Tadalafil non-formulary**
- **San Antonio Combined P&T Committee considers addition of Vardenafil to regional MTF formulary**
  - **San Antonio Combined P&T Committee includes BAMC, RAFB, and WHMC**

# Vardenafil Addition PROs and CON

- **PROs**
  - **Facilitate conversion to more cost-effective agent – potential decrease in MTF/MHS expenditures**
    - **Provide incentive to providers to prescribe vardenafil**
  - **Decrease burdensome special order/non-formulary request process for providers, pharmacy, and patients**
- **CON**
  - **Addition of vardenafil to regional formulary could potentially result in substantial MTF expenditures for which they are not programmed**
    - **MTFs concerned beneficiaries would migrate from other points of service (POS) to receive PDE5 at no copay**

# BIA Request

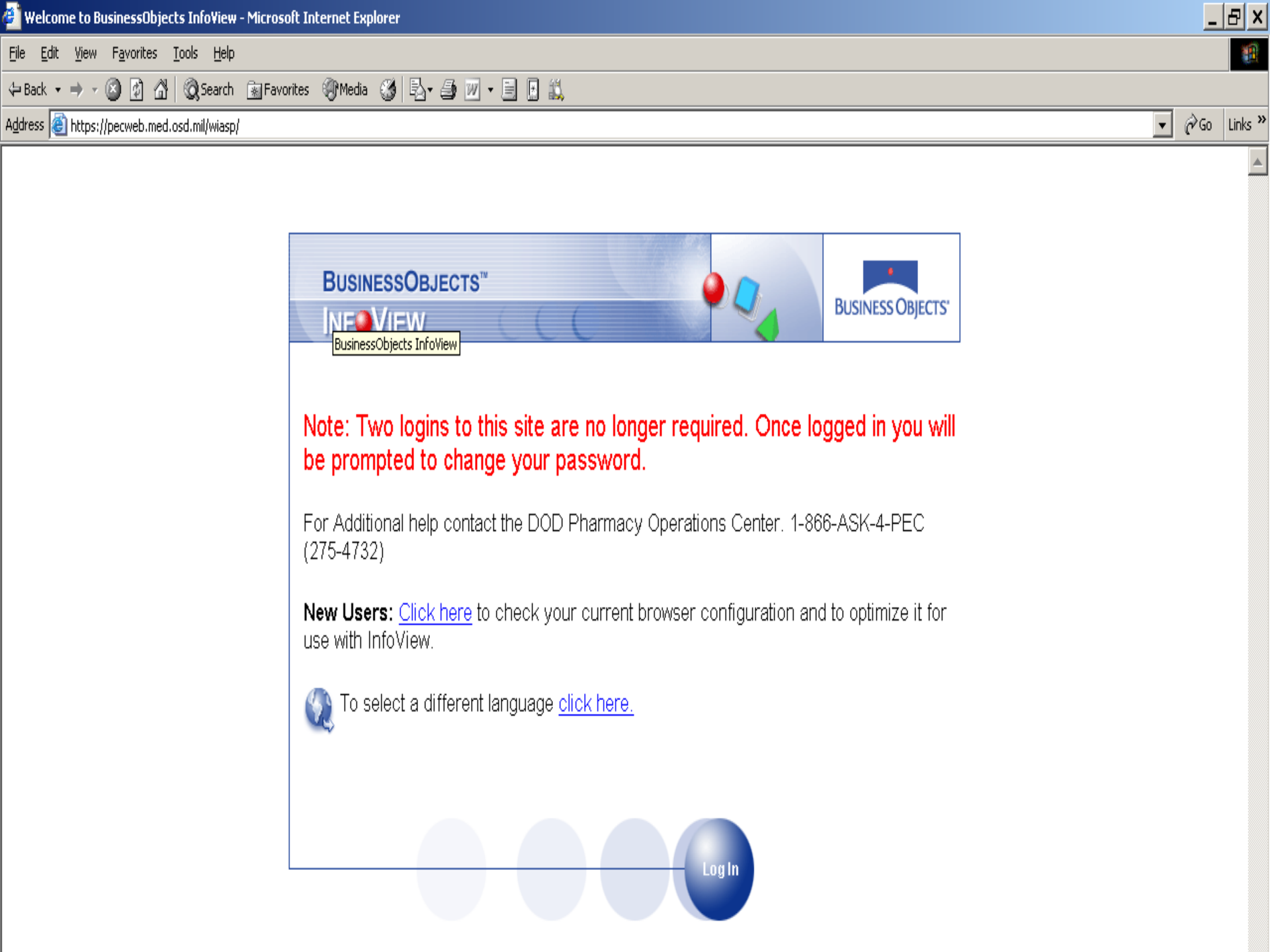
- **The San Antonio Combined P&T Committee contacts PEC to perform BIA on decision to add vardenafil to local formulary**
- **Question to be answered:**
  - **What is the budget impact of the worst case scenario?**
    - **All current PDE5 utilizers migrate from current POS venue to local MTFs to obtain PDE5 at no copay**

# PEC Analysis Utilization Data

- **Captured PDE5 utilization data from PDTS**
  - **Males ≥ 50**
  - **One-year period 01 Sep 2004 to 31 Aug 2005**
  - **150-mile radius from MTFs based on zip codes**
- **Saved output from Business Objects as text file then imported to Microsoft Office Excel**
- **Used pivot tables to manipulate the data**

# BIA
# Data Sources

- **Pharmacy Data Transaction Service (PDTS)**
  - **Tracts all prescriptions filled at MTFs, the TRICARE Retail Network, and TRICARE Mail Order Pharmacy**
  - **Database fully operational 1 July 2001**
- **Military Health Service Management and Analysis Reporting Tool (M2)**
  - **Centralized database maintained by DoD Health Affairs Executive Information/Decision Support (EI/DS) Program Office**
  - **Centralized repository of all ambulatory care and hospitalization health care transactions across military healthcare services**
    - **Includes demographic, enrollment, diagnostic and procedural codes, and other claims data from both MTF and commercial network**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Note: Two logins to this site are no longer required. Once logged in you will be prompted to change your password.
For Additional help contact the DOD Pharmacy Operations Center. 1-866-ASK-4-PEC (275-4732)
New Users: Click here to check your current browser configuration and to optimize it for use with InfoView.
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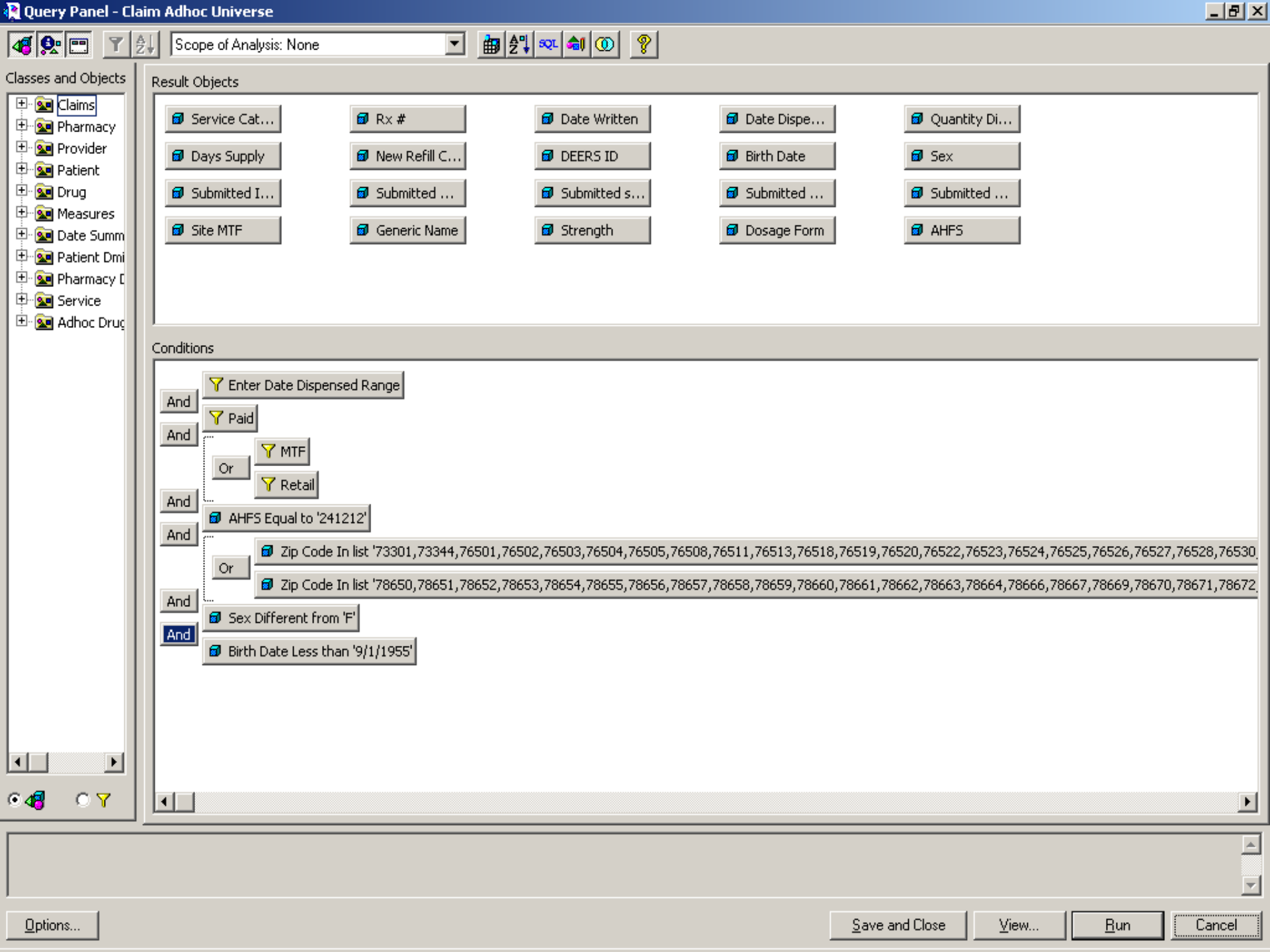
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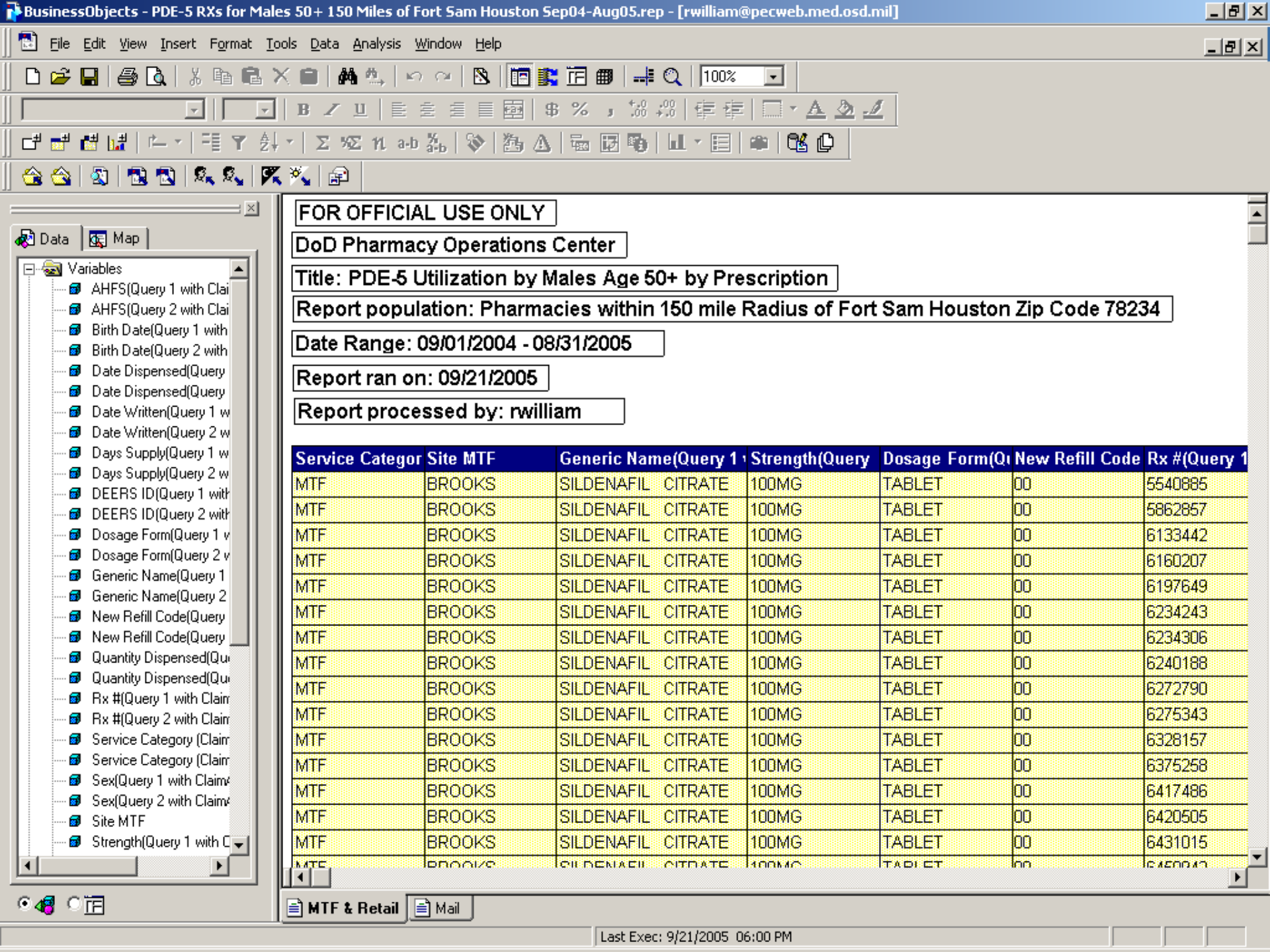
BusinessObjects - PDE-5 RXs for Males 50+ 150 Miles of Fort Sam Houston Sep04-Aug05.rep - [rwilliam@pecweb.med.osd.mil]
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DoD Pharmacy Operations Center
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Report population: Pharmacies within 150 mile Radius of Fort Sam Houston Zip Code 78234
Date Range: 09/01/2004 - 08/31/2005
Report ran on: 09/21/2005
Report processed by: rwilliam
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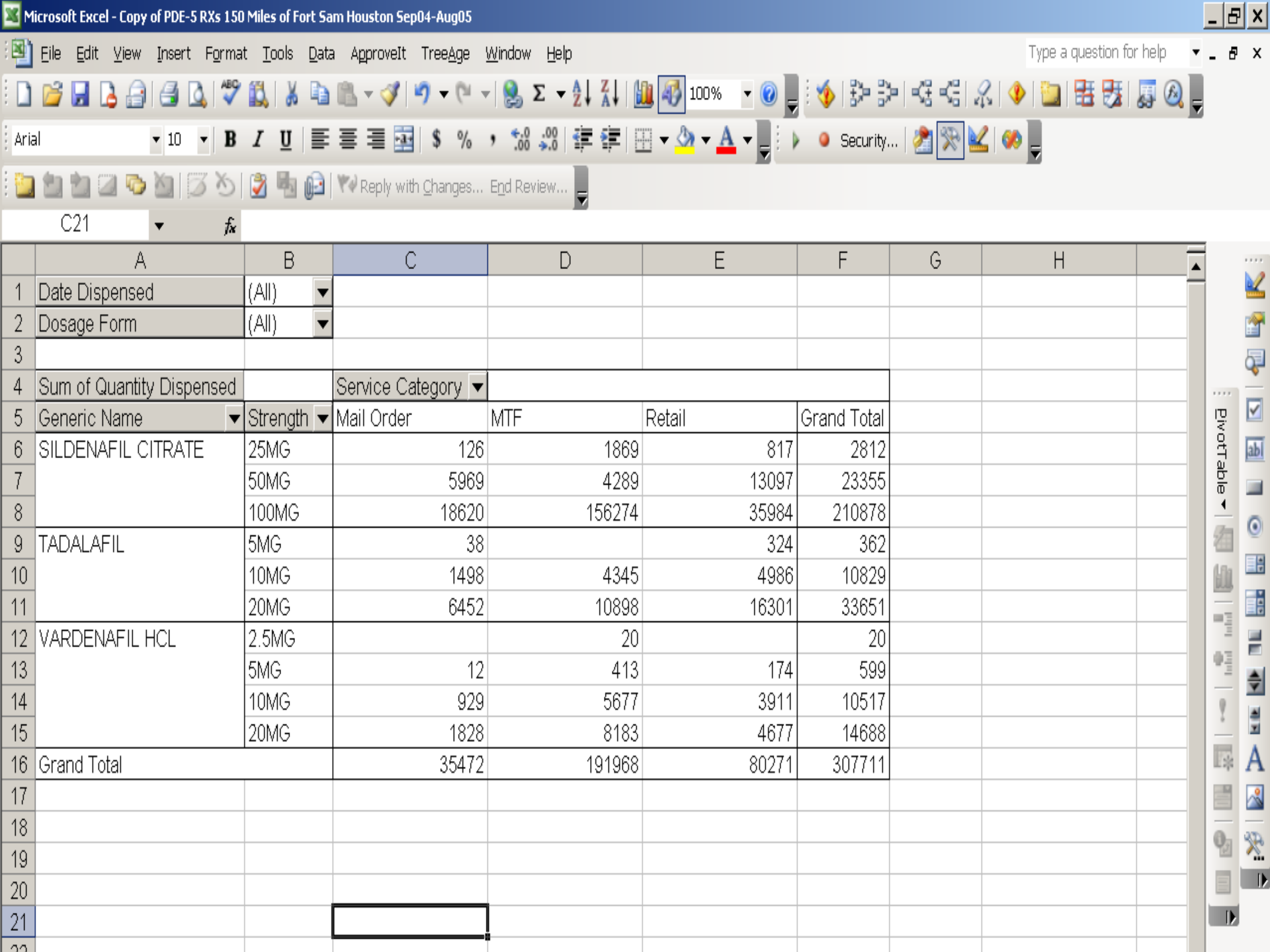
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| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | Date Dispensed | (All) | | | | | | |
| 2 | Dosage Form | (All) | | | | | | |
| 3 | | | | | | | | |
| 4 | Sum of Quantity Dispensed | | Service Category | | | | | |
| 5 | Generic Name | Strength | Mail Order | MTF | Retail | Grand Total | | |
| 6 | SILDENAFIL CITRATE | 25MG | 126 | 1869 | 817 | 2812 | | |
| 7 | | 50MG | 5969 | 4289 | 13097 | 23355 | | |
| 8 | | 100MG | 18620 | 156274 | 35984 | 210878 | | |
| 9 | TADALAFIL | 5MG | 38 | | 324 | 362 | | |
| 10 | | 10MG | 1498 | 4345 | 4986 | 10829 | | |
| 11 | | 20MG | 6452 | 10898 | 16301 | 33651 | | |
| 12 | VARDENAFIL HCL | 2.5MG | | 20 | | 20 | | |
| 13 | | 5MG | 12 | 413 | 174 | 599 | | |
| 14 | | 10MG | 929 | 5677 | 3911 | 10517 | | |
| 15 | | 20MG | 1828 | 8183 | 4677 | 14688 | | |
| 16 | Grand Total | | 35472 | 191968 | 80271 | 307711 | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
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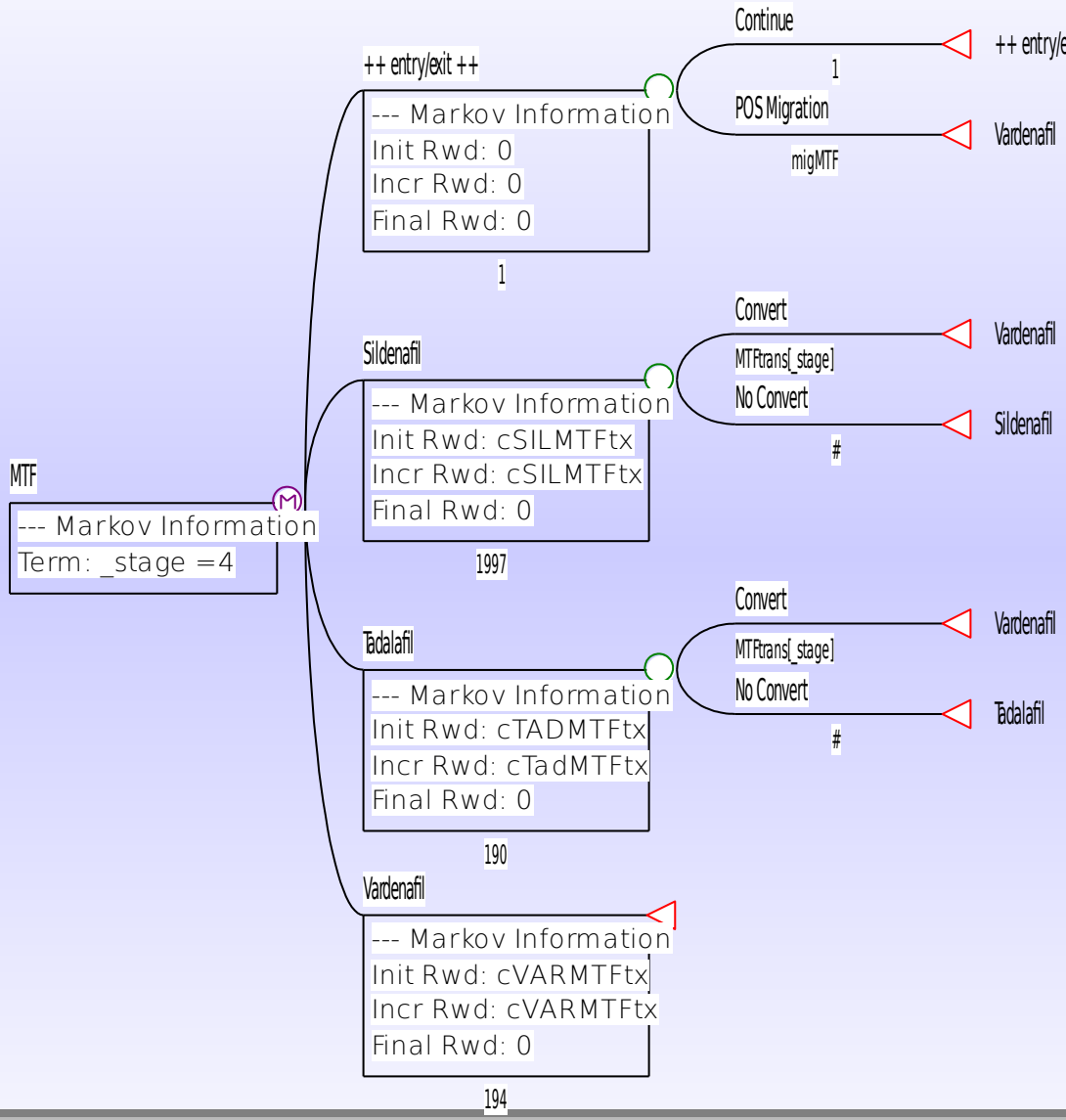
# Business Objects Reports Options

- **Request report from PEC Data Management Team**
  - **Complete report request form found on PEC web page (http://www.pec.ha.osd.mil/PDTS/pdts_busobj.htm)**
- **Attend Business Objects Training at PEC**
  - **Need request from Chief Pharmacy Service and approval of Service consultant**
  - **Contact PEC to schedule a date (schedule on web page)**
  - **Must have local funding for travel and per diem, no charge for the training**
  - **Class runs 1 and ½ days and offers 4 hours CE by ACPE**
  - **Contact Roger Williams at roger.williams2@amedd.army.mil**

# Answering the Question Methodology

1. **Dynamic Method - Complex**
   - **Markov Model incorporates the element of time into market share migration**
   - **Market share migration based on unique users**
2. **Simple Method**
   - **Assumes an instantaneous migration**
   - **Market share migration based on days of treatment**

# Dynamic Method Markov Model



# Markov Model BIA Results

| Stage | Stage Reward | Cumulative Reward | P (Sil) | P(Tad) | P(Var) | Rwd (Sil) | Rwd (Tad) | Rwd (Var) |
|---|---|---|---|---|---|---|---|---|
| 0 | $239,006 | $239,006 | 1,997 | 190 | 194 | $205,611 | $21,033 | $12,362 |
| 1 | $202,389 | $441,395 | 399 | 38 | 2,465 | $41,122 | $4,207 | $157,060 |
| 2 | $235,603 | $676,998 | 399 | 38 | 2,986 | $41,122 | $4,207 | $190,274 |
| 3 | $268,817 | $945,815 | 399 | 38 | 3,507 | $41,122 | $4,207 | $223,488 |
| 4 | $302,031 | $1,247,846 | 399 | 38 | 4,029 | $41,122 | $4,207 | $256,702 |

**Baseline MTF Unique Utilizers: 2,381**

**Baseline other POS Unique Utilizers: 2,085**

**Model END Unique Utilizers: 4,466 (87.6% increase over baseline)**

**Cumulative Expenditures @ 1 year (A): $945,815**

**Cumulative Expenditures @ 1 year (B): $1,247,846 - $239,006 = $1,008,840**

**Baseline Expenditures: $947,965**

# Simple Method

1. Establish variables to determine weighted average cost per day of treatment
2. Determine baseline total expenditures by POS & agent
3. Determine post-decision total expenditures by POS & agent
4. Conduct MTF Conversion
5. Conduct POS Conversion

| Generic Name | POS | Strength | Evaluation Price* | Total Units Dispensed | Total Days | Avg Tabs/ Day | Cost/Day | Total Tx Cost | Weighted Average Cost per Day |
|---|---|---|---|---|---|---|---|---|---|
| Vardenafil | MTF | 2.5mg | $3.540 | 20 | 20 | 1.00 | $3.54 | $71 | $3.54 |
| | | 5mg | $3.540 | 407 | 407 | 1.00 | $3.54 | $1,441 | |
| | | 10mg | $3.540 | 5,629 | 5,629 | 1.00 | $3.54 | $19,927 | |
| | | 20mg | $3.540 | 8,081 | 8,081 | 1.00 | $3.54 | $28,607 | |
| | | **Totals** | | 14,137 | 14,137 | | | $50,045 | |
| | Ret | 2.5mg | $8.966 | 0 | 0 | 0.00 | $0.00 | $0 | $8.96 |
| | | 5mg | $8.963 | 174 | 174 | 1.00 | $8.96 | $1,560 | |
| | | 10mg | $8.965 | 3,911 | 3,911 | 1.00 | $8.96 | $35,062 | |
| | | 20mg | $8.963 | 4,677 | 4,677 | 1.00 | $8.96 | $41,921 | |
| | | **Totals** | | 8,762 | 8,762 | | | $78,542 | |
| | Mail | 2.5mg | $3.540 | 0 | 0 | 0.00 | $0.00 | $0 | $3.54 |
| | | 5mg | $3.540 | 12 | 12 | 1.00 | $3.54 | $42 | |
| | | 10mg | $3.540 | 929 | 929 | 1.00 | $3.54 | $3,289 | |
| | | 20mg | $3.540 | 1,828 | 1,828 | 1.00 | $3.54 | $6,471 | |
| | | **Totals** | | 2,769 | 2,769 | | | $9,802 | |
| | All 3 POS | 2.5mg | $3.540 | 20 | 20 | 1.00 | | $71 | $5.39 |
| | | 5mg | $5.131 | 593 | 593 | 1.00 | $5.13 | $3,043 | |
| | | 10mg | $5.567 | 10,469 | 10,469 | 1.00 | $5.57 | $58,277 | |
| | | 20mg | $5.279 | 14,586 | 14,586 | 1.00 | $5.28 | $76,999 | |
| | | | | | 25.66 | | | $138.39 | |

| Generic Name | POS | Strength | Evaluation Price* | Total Units Dispensed | Total Days | Avg Tabs/ Day | Cost/Day | Total Tx Cost | Weighted Average Cost per Day |
|---|---|---|---|---|---|---|---|---|---|
| **Sildenafil** | MTF | 25mg | $5.820 | 1,776 | 1,776 | 1.00 | $5.820 | $10,326 | $5.72 |
| | | 50mg | $5.720 | 1,626 | 1,626 | 1.00 | $5.720 | $9,301 | |
| | | 100mg | $5.720 | 142,011 | 142,011 | 1.00 | $5.720 | $812,303 | |
| | | **Totals** | | 145,413 | 145,413 | | | $831,940 | |
| | Ret | 25mg | $7.142 | 817 | 817 | 1.00 | $7.142 | $5,835 | $9.61 |
| | | 50mg | $9.431 | 13,097 | 13,097 | 1.00 | $9.431 | $123,522 | |
| | | 100mg | $9.730 | 35,984 | 35,984 | 1.00 | $9.730 | $350,124 | |
| | | **Totals** | | 49,898 | 49,898 | | | $479,481 | |
| | Mail | 25mg | $5.820 | 126 | 126 | 1.00 | $5.820 | $733 | $5.72 |
| | | 50mg | $5.720 | 5,969 | 5,969 | 1.00 | $5.720 | $34,143 | |
| | | 100mg | $5.720 | 18,620 | 18,620 | 1.00 | $5.720 | $106,056 | |
| | | **Totals** | | 24,715 | 24,715 | | | $141,382 | |
| | All 3 POS | 25mg | $6.217 | 2,719 | 2,719 | 1.00 | $6.217 | $16,905 | $6.60 |
| | | 50mg | $8.069 | 20,692 | 20,692 | 1.00 | $8.069 | $166,965 | |
| | | 100mg | $6.454 | 196,615 | 196,615 | 1.00 | $6.454 | $1,268,934 | |
| | | **Totals** | | 220,026 | 220,026 | | | $1,452,803 | |

| Generic Name | POS | Strength | Evaluation Price* | Total Units Dispensed | Total Days | Avg Tabs/ Day | Cost/Day | Total Tx Cost | Weighted Average Cost per Day |
|---|---|---|---|---|---|---|---|---|---|
| **Tadalafil** | MTF | 5mg | $6.130 | 0 | 0 | 1.00 | $6.130 | $0 | $6.15 |
| | | 10mg | $6.070 | 4,205 | 4,205 | 1.00 | $6.070 | $25,254 | |
| | | 20mg | $6.180 | 9,872 | 9,872 | 1.00 | $6.180 | $61,009 | |
| | | **Totals** | | 14,077 | 14,077 | | | $86,533 | |
| | Ret | 5mg | $9.544 | 324 | 324 | 1.00 | $9.544 | $3,092 | $9.52 |
| | | 10mg | $9.517 | 4,986 | 4,986 | 1.00 | $9.517 | $47,450 | |
| | | 20mg | $9.520 | 16,301 | 16,301 | 1.00 | $9.520 | $155,182 | |
| | | **Totals** | | 21,611 | 21,611 | | | $205,725 | |
| | Mail | 5mg | $6.130 | 38 | 38 | 1.00 | $6.130 | $233 | $6.16 |
| | | 10mg | $6.070 | 1,498 | 1,498 | 1.00 | $6.070 | $9,093 | |
| | | 20mg | $6.180 | 6,452 | 6,452 | 1.00 | $6.180 | $39,873 | |
| | | **Totals** | | 7,988 | 7,988 | | | $49,199 | |
| | All 3 POS | 5mg | $9.186 | 362 | 362 | 1.00 | $9.186 | $3,325 | $7.82 |
| | | 10mg | $7.678 | 10,689 | 10,689 | 1.00 | $7.678 | $82,067 | |
| | | 20mg | $7.849 | 32,625 | 32,625 | 1.00 | $7.849 | $256,064 | |
| | | **Totals** | | 43,676 | 43,676 | | | $341,457 | |

# Costs
# Drug

- **Evaluation costs depend on pre-post decision, point of service, and UF status:**
  - **Pre-decision Costs**
    - **Pre-decision costs are used to establish baseline**
    - **Use current costs for all POS**
    - **MTF current cost can be best obtained from Prime Vendor**
    - **Mail and Retail costs are obtained from PDTS submitted ingredient cost**

# Costs
# Drug

- **Post Decision Costs**
  - **UF/BCF/ECF Status**
    - **Formulary on UF or BCF/ECF drug, use post-decision price**
    - **Non-formulary on UF, use FSS price for MTF and Mail**
  - **MTF and Mail UF or BCF/ECF prices can be obtained from PEC or prime vendor if new prices loaded**
  - **Retail costs can be obtained from PDTS data**
    - **Retail costs do not change as a result of UF decision…for now**

# Baseline

| Weighted Average Cost Per Day of Tx | | | | Total Days of Tx by POS & Agent | | | |
|---|---|---|---|---|---|---|---|
| AGENT | POS VENUE | | | POS VENUE | | | Total |
| | MTF | Retail | Mail | MTF | Retail | Mail | |
| Sildenafil | $5.62 | $9.61 | $5.61 | 145,413 | 49,898 | 24,715 | 220,026 |
| Tadalafil | $6.03 | $9.52 | $6.01 | 14,077 | 21,611 | 7,988 | 43,676 |
| Vardenafil | $4.11 | $8.96 | $3.94 | 14,137 | 8,762 | 2,769 | 25,668 |
| | | | Total | 173,627 | 80,271 | 35,472 | 289,370 |

| Total Expenditures by POS & Agent | | | | |
|---|---|---|---|---|
| AGENT | POS VENUE | | | Total |
| | MTF | Retail | Mail | |
| Sildenafil | $817,221 | $479,520 | $138,651 | $1,435,392 |
| Tadalafil | $84,884 | $205,737 | $48,008 | $338,629 |
| Vardenafil | $58,103 | $78,508 | $10,910 | $147,520 |
| Total | $960,208 | $763,764 | $197,569 | $1,921,541 |

# Post Decision

| Weighted Average Cost Per Day of Tx | | | | Total Days of Tx by POS & Agent | | | |
|---|---|---|---|---|---|---|---|
| AGENT | POS VENUE | | | POS VENUE | | | Total |
| | MTF | Retail | Mail | MTF | Retail | Mail | |
| Sildenafil | $5.72 | $9.61 | $5.72 | 145,413 | 49,898 | 24,715 | 220,026 |
| Tadalafil | $6.15 | $9.52 | $6.16 | 14,077 | 21,611 | 7,988 | 43,676 |
| Vardenafil | $3.54 | $8.96 | $3.54 | 14,137 | 8,762 | 2,769 | 25,668 |
| | | | Total | 173,627 | 80,271 | 35,472 | 289,370 |

| Total Expenditures by POS & Agent | | | | |
|---|---|---|---|---|
| AGENT | POS VENUE | | | Total |
| | MTF | Retail | Mail | |
| Sildenafil | $831,762 | $479,520 | $141,370 | $1,452,652 |
| Tadalafil | $86,574 | $205,737 | $49,206 | $341,516 |
| Vardenafil | $50,045 | $78,508 | $9,802 | $138,355 |

# MTF Conversion

| Agent | MTF TWAC Per Day Tx | Days Tx | % Days Tx Converted | Days Tx Converted | Days Tx Post Conversion |
|---|---|---|---|---|---|
| Sildenafil | $5.72 | 145,413 | 80% | 116,330 | 29,083 |
| Tadalafil | $6.15 | 14,077 | | 11,262 | 2,815 |
| Vardenafil | $3.54 | 14,137 | NA | NA | 141,729 |

**Baseline = $960,208**
**Conversion = $685,388 Cost Avoidance = $274,820**

| Total Expenditures by POS & Agent | | | | |
|---|---|---|---|---|
| AGENT | POS VENUE | | | Total |
| | MTF | Retail | Mail | All 3 POS |
| Sildenafil | $166,352 | $479,520 | $141,370 | $787,242 |
| Tadalafil | $17,315 | $205,737 | $49,206 | $272,258 |
| Vardenafil | $501,721 | $78,508 | $9,802 | $590,030 |
| Total | $685,388 | $763,764 | $200,378 | $1,649,530 |

| % Days of TX Converted | | | | | |
|---|---|---|---|---|---|
| 40% | 50% | 60% | 70% | 80% | 90% |
| $826,884 | $791,510 | $756,136 | $720,762 | $685,388 | $650,180 |

# POS Conversion Break Even

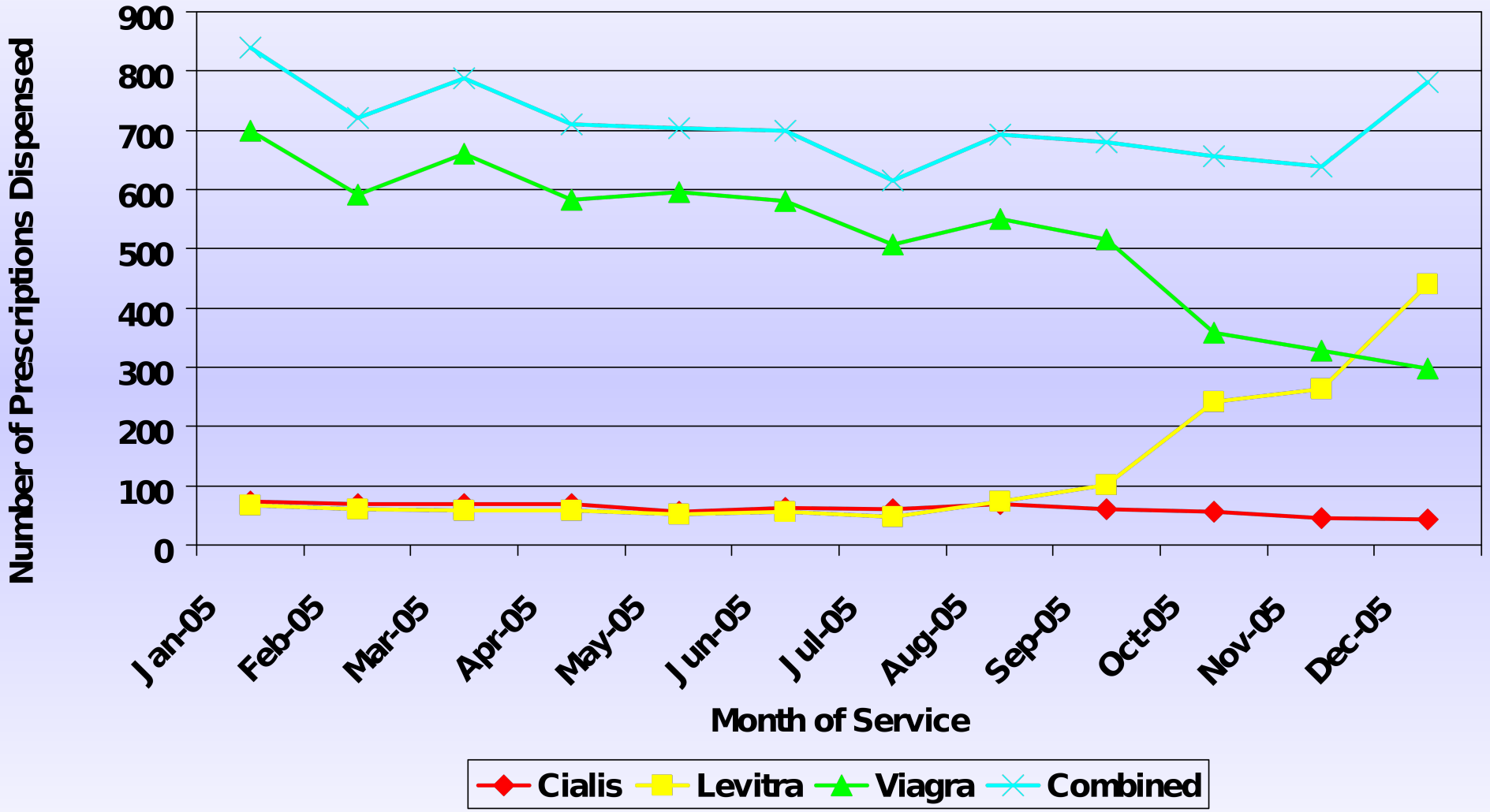
**POS CONVERSION**

| AGENT | MTF TWAC Per Day of TX | Days Tx | | | % Days Tx Converted | Days Tx Converted | | | Days Tx Post Conversion | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MTF | Retail | Mail | | MTF | Retail | Mail | MTF | Retail | Mail |
| Sil | $5.72 | 29,083 | 49,898 | 24,715 | 67% | 0 | 33,432 | 16,559 | 29,083 | 16,466 | 8,156 |
| Tad | $6.15 | 2,815 | 21,611 | 7,988 | | 0 | 14,479 | 5,352 | 2,815 | 7,132 | 2,636 |
| Var | $3.54 | 141,729 | 8,762 | 2,769 | NA | 0 | 5,871 | 1,855 | 219,277 | 2,891 | 914 |
| Total | | 173,627 | 80,271 | 35,472 | | 0 | 53,782 | 23,766 | 251,175 | 26,489 | 11,706 |

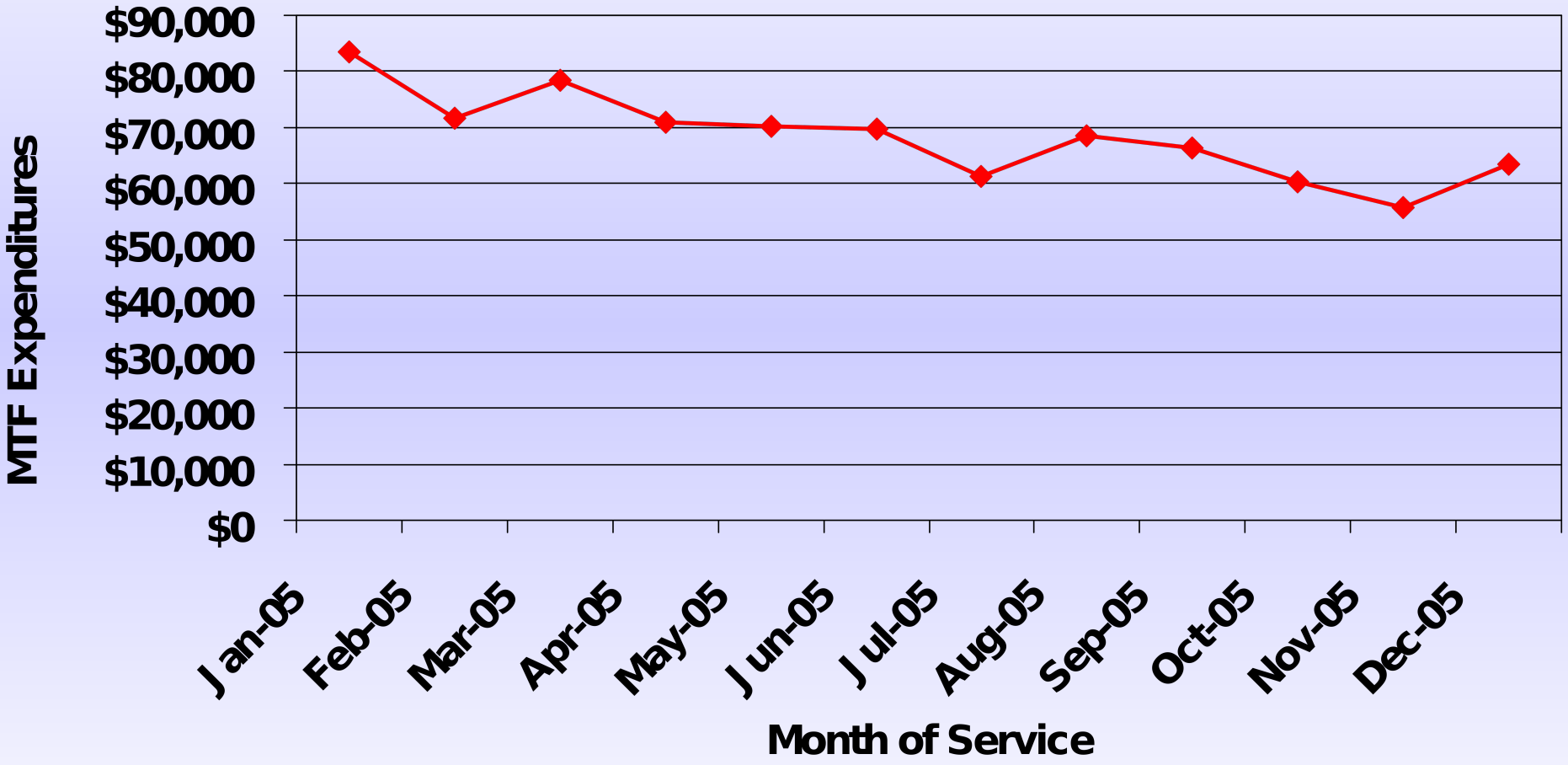
**Total Expenditures by POS & Agent**

| AGENT | POS VENUE | | | Total |
|---|---|---|---|---|
| | MTF | Retail | Mail | |
| Sildenafil | $166,352 | $158,242 | $46,652 | $371,246 |
| Tadalafil | $17,315 | $67,893 | $49,206 | $134,414 |
| Vardenafil | $776,240 | $25,907 | $9,802 | $811,950 |
| Total | $959,907 | $252,042 | $105,660 | $1,317,610 |

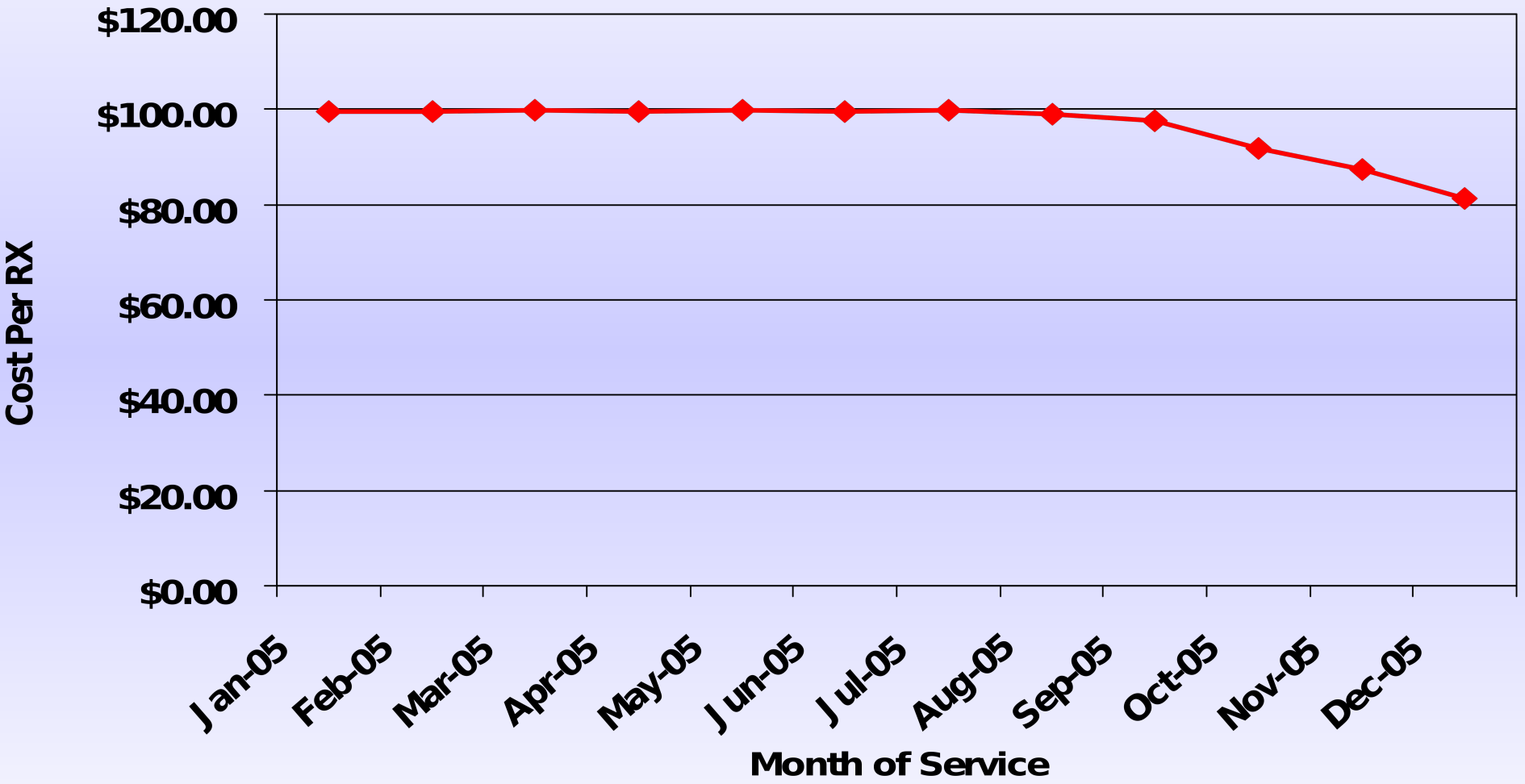
# Results of Decision
# PDE5 Prescription Trends



# Results of Decision
# PDE5 MTF Expenditures



# Results of Decision
# Cost Per RX



# Conclusion

- **BIA should be considered a key component of an informed MTF Formulary decision**
- **MTF P&T Committees have the knowledge, skills, and tools necessary to conduct their own BIA**